

Atty. Dkt. No. 200309526-1

REMARKS

This Reply is in response to the Office Action mailed on May 5, 2005.
With this response, claims 8-13 and 20-29 are cancelled.

I. Specification.

Applicants gratefully acknowledge the reminder of Paragraph 4 of the Office Action regarding language and format for an abstract of the disclosure. Applicants note that the Office Action does not object to the Abstract of the present patent application. Applicants further submit that the current Abstract complies with 37 CFR 1.72 (b).

II. Objection to claims 1, 5, 14-19, 30, 32, and 33

Paragraph 5 of the Office Action objected to claims because of alleged informalities. In response, Applicants are amending these claims by adding the term "and" after the final semicolon in each. Applicants submit that the addition of the term "and" does not alter the scope of these claims at all and is not done for reasons related to patentability, but rather to address alleged informalities (i.e., alleged grammatical errors).

III. Rejection of claims 1, 3, 6, 7, 14, 15, and 19 under 35 U.S.C. § 102(b) Based Upon Ouchida et al (U.S. Patent No. 5,936,650).

Paragraph 7 of the Office Action rejected claims 1, 3, 6, 7, 14, 15, and 19 under 35 U.S.C. § 102(b) based upon Ouchida et al (U.S. Patent No. 5,936,650). Based upon the following remarks, Applicants respectfully request that the rejection of claims 1, 3, 6, 7, 14, 15, and 19 be withdrawn.

Claim 1, as amended, recites, "the first valve between the first chamber and the port" and "the second valve between the second chamber and the port." The Ouchida transport valve 86 is not between a chamber of the cartridge 10 and a port of the cartridge 10. Accordingly, Applicants submit that Ouchida does

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not anticipate claim 1 as amended. Withdrawal of the rejection of claim 1 is requested.

Claim 14 recites a controller configured to "open the second valve to permit the pump to pull air from the print cartridge via the second valve...." Ouchida fails to disclose such a controller. Further, the Ouchida check valve 64 is not disclosed as being opened by a controller. In this regard, Ouchida discloses as follows.

The check valve 64 may be of "duckbill" configuration with an opposed pair of flaps 66a, 66b that are resiliently biased against each other in order to permit fluid flow out of the cartridge. When an adequate pressure gradient is established across valve 64, fluid may pass out of cartridge 12 through check valve 64. Check valve 64 automatically closes to prevent fluid leakage from outlet fitment 46 when circulation conduit portion 23 is detached from outlet fitment 46 and the cartridge is removed from the printer. (Col. 6, lines 28-37).

Accordingly, because Ouchida fails to disclose a controller configured to "open the second valve to permit the pump to pull air from the print cartridge via the second valve...." Ouchida does not anticipate claim 14. Withdrawal of the rejection of claim 14 is respectfully requested.

Claim 19 was also rejected as anticipated by Ouchida. Applicants respectfully traverse. Claim 19 recites "first and second chambers in fluid communication with a port *via first and second valves...*(emphasis added)." The Ouchida fitment 44 is not in fluid communication with the volumes 14, 16 *via the valves 64, 86*. Indeed, the Ouchida valve 86 couples an ink supply 20 with conduit 22. As such, Ouchida fails to disclose "first and second chambers in fluid communication with a port via first and second valves..." and, thus, does not anticipate claim 19. Withdrawal of the rejection of claim 19 is requested.

Claims 3, 6, 7, depend upon claim 1 and are allowable for at least the same reasons claim 1 is allowable. Claim 6 also recites a manifold "to permit ink to be delivered to the printhead from the first chamber and at least one other source via the manifold". This feature of claim 6 is not disclosed by Ouchida in

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that Ouchida merely discloses an aperture 38 "to conduct fluid flow from the ink storage volume 14 to the standpipe volume 16...." (Col. 4, 5).

Claim 15 depends upon claim 14 and is allowable for at least the same reason claim 14 is allowable. Withdrawal of the rejections of claims 3, 6, 7, and 15 is requested.

IV. Rejection of Claim 5 Under 35 U.S.C. § 103(a) Based Upon Ouchida and Hou (U.S. Patent No. 6,213,598).

Paragraph 9 of the Office Action rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Ouchida in view of Hou. Applicants have rewritten claim 5 in independent form and submit that rewriting the claim in independent form does not alter the scope of claim 5. Applicants respectfully traverse the rejection of claim 5 on the basis that the Office Action has failed to establish a prima facie case of obviousness of claim 5 in that there is no suggestion to modify Ouchida in the manner proposed in the Office Action.

In particular, the Office Action proposes "to include a bag and a bias member, as taught by Hou et al into Ouchida et al, for the purpose of controlling the pressure within the ink reservoir." (Office Action, Paragraph 9). In this regard, Applicants refer to FIG. 1 of Ouchida which illustrates that "ink storage volume 14 is filled with capillary material 31, such as tiny foam balls, fiber bundles or an open-cell hydrophilic foam that serves to hold ink by capillarity and, as a result, establishes a slight back pressure within the reservoir." (Ouchida, Col. 4, lines 50-54).

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. MPEP 2143.01. Here, Ouchida controls pressure in volume 14 by use of capillary material 31. The modification of Ouchida proposed in the Office action (i.e., inclusion of a bag and bias member) would result in pressure control using a different principle of operation, namely a principle other than capillarity.

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As such, because the proposed modification would change the principle of operation of Ouchida, the Office Action fails to establish prima facie obviousness of claim 5. Withdrawal of the rejection of claim 5 is requested.

Further, Applicants submit that the proposed modification of Ouchida fails for lack of reasonable expectation of success. To establish a prima facie case of obviousness, there must be there must be a reasonable expectation of success. MPEP 2143. Here, the Office Action fails to establish a reasonable expectation that including a bag and a bias member, along with the capillary material 31 in the volume 14 would be effective in controlling pressure within the volume 14. Accordingly, for this additional reason, Applicants further request withdrawal of the rejection of claim 5.

V. Rejection of Claims 2 and 16 Under 35 U.S.C. § 103(a) Based Upon Ouchida and Haan et al (U.S. Patent No. 6,712,461).

Paragraph 10 of the Office Action rejected claims 2 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Ouchida in view of Haan. Applicants have rewritten claim 2 in independent form and submit that rewriting the claim in independent form does not alter the scope of claim 2. Applicants respectfully traverse the rejection of claim 2 on the basis that the Office Action has failed to establish a prima facie case of obviousness of claim 1 in that there is no suggestion to modify Ouchida in the manner proposed in the Office Action.

In rejecting claim 2, the Office Action fails to provide any suggestion or motivation to modify Ouchida by including a heating element disposed within the chamber. Here, Ouchida is directed at "dissipating heat generated by the print head" not adding heat. (Ouchida, Abstract). Thus, Ouchida does not suggest heating ink in the chamber, but rather teaches away. Ouchida teaches away by teaching heat dissipation rather than heat generation. (References cannot be combined where reference teaches away from their combination, MPEP 2145, X, D). Accordingly, because there is no motivation in the references to modify

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Ouchida as proposed in the Office Action, Applicants request withdrawal of the rejection of claim 2.

Claim 16 depends upon claim 14 and is allowable for at least the same reasons claim 14 is allowable. Claim 16 is also allowable for reasons similar to those set forth above with respect to claim 2. Withdrawal of the rejection of claim 16 is requested.

VI. Rejection of Claims 17 and 18 Under 35 U.S.C. § 103(a) Based Upon Ouchida and Moriyama (U.S. Patent No. 6,050,680).

Paragraph 11 of the Office Action rejected claims 17 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Ouchida in view of Moriyama. Claims 17 and 18 depend upon claim 14 and are allowable for at least the same reasons claim 14 is allowable. Withdrawal of the rejections of claims 17 and 18 is requested.

VII. Rejection of Claims 4 and 30-33 Under 35 U.S.C. § 103(a) Based Upon Ouchida, Hann, and Schiaffino (U.S. Patent No. 6,390,585).

Paragraph 12 of the Office Action rejected claims 4 and 30-33 as unpatentable over Ouchida, Hann, and Schiaffino. Applicants traverse on the basis there is no motivation or suggestion to modify Ouchida to include "a first temperature sensor disposed within the chamber for determining a temperature of the ink disposed therein; and a second temperature sensor at the printhead for determining a temperature of the printhead" as recited by claim 30.

Ouchida is not directed to temperature detection or temperature control. As such, there is no motivation in Ouchida for modifying Ouchida with a first or a second temperature sensor. Further, Ouchida does not disclose use of temperature information and, thus, use of first and second temperature sensors would be for no reason in Ouchida. Because Ouchida does not regulate temperature or use temperature information, there is no motivation to modify Ouchida to include "a first temperature sensor disposed within the chamber for

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determining a temperature of the ink disposed therein; and a second temperature sensor at the printhead for determining a temperature of the printhead" as recited by claim 30. Withdrawal of the rejection of claim 30 is requested.

Claims 31-33 depend upon claim 30 and are allowable for at least the same reasons claim 30 is allowable. Claim 31 is also allowable for reasons similar to those set forth above with respect to claim 2.

VIII. Rejection of Claim 34 Under 35 U.S.C. § 103(a) Based Upon Ouchida, Hann, Schiaffino, and Hou.

Paragraph 12 of the Office Action rejected claim 34 and 30-33 as unpatentable over Ouchida, Hann, Shiaffino, and Hou. Claim 34 depends upon claim 33 and is allowable for at least the same reasons claim 33 is allowable. Claim 34 is also allowable for reasons similar to those set forth above with respect to claim 5. Withdrawal of the rejection of claim 34 is requested.

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IX. Conclusion.

Applicants believe that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 08-2025. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 08-2025. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 08-2025.

Respectfully submitted,

Date

1 June 2005

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